

**A CHICKEN IN EVERY POT  
A NEW BOILER IN EVERY POWERPLANT  
A NEW POWERPLANT AT EVERY INDUSTRIAL SITE**

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For those of you who do not know, the Council of Industrial Boiler Owners (CIBO) is a broad-based association of industrial boiler owners, architect-engineers, related equipment manufacturers, and university affiliates consisting of over 100 members representing 20 major industrial sectors. CIBO members have facilities located in every region and state of the country. We have a representative distribution of almost every type boiler and fuel combination currently in operation. CIBO was formed in 1978 to promote the exchange of information within industry and between industry and government relating to energy and environmental equipment, technology, operations, policies, laws and regulations affecting industrial boilers. Since its formation, CIBO has taken an active interest in the development of technically sound, reasonable, cost-effective energy and environmental regulations for industrial boilers. One of our prime objectives is to support and promote the industrial energy base of our country, a foundation of global competitive power.

What you do and are talking about at this conference is directly in line with our objective to promote the industrial energy base of our country. In that context, I want to begin with a quote from Jesse Jackson's remarks to the Democratic National Convention in Chicago:

**"What is our vision tonight? Just look around.**

**This publicly financed United Center is a new Chicago Mountaintop. To the South, Comiskey Park, another mountain. To the West, Cook County Jail, with its 11,000 mostly youthful inmates.**

**Between these three mountains lies a canyon.**

**Once Campbell's Soup was in this canyon. Sears was there, and Zenith, Sunbeam, the Stockyards. There were jobs and industry where now there is a canyon of welfare and despair.**

**This canyon exists in virtually every city in America."**

If we look at where the companies which once thrived in the canyon have gone we may not like the answers we find. When we talk about boilers which support the companies which produced these jobs, they are not being built in this country today. When is the last time you saw a major new manufacturing plant being built or considered for any major city or non-attainment area? They are not. The canyon of welfare and despair will never be revitalized without a rebuilding of American industry. Even Mr. Jackson knew this, as he ended his speech at the convention with the following:

**“In the Canyon, we must have a plan to rebuild and redeem our cities, to reinvest in America.**

**I suggest we have at least as much sense as a honey bee, which knows enough to repollinate her flower.**

**After World War II, we helped rebuild Germany-- the Marshall Plan. We helped rebuild Japan - the MacArthur Plan.**

**Now we must rebuild America.”**

Today I want to share with you my thoughts on a problem which all but prevents us from doing this. This problem has increased the complexity for the individual or business to create its own future. There is a perception, throughout the country, which binds our hands as we look to create a better future for our children -- whether they are in the city or suburb.

What is this perception? "Energy Awareness!" There is “no” energy awareness! We as a people take energy for granted. We forget it takes energy to do anything, to provide any product or service. I challenge you to touch something in this room, or where ever you happen to be, which doesn't have energy connected to it in some way. Even touching takes energy.

As we look to the future, our nation’s energy awareness will be the determining factor in how and what we are able to do. I do not know what that will be. Right now we have great “Environmental Awareness.” To balance the future, we must have an equally strong “Energy Awareness.” In a sense, it is now backwards. I believe people, in general, feel energy happens (made by God, used by man), and environment is created (made by man, used by God). When you think about it, in reality, the environment happens and energy is made. Everyone agrees we must be environmentally conscious as we build our future. However, without energy there is no future as we think of it today.

If we stop and take a look at where we are today, to say the “times-are-a-changin” may be an understatement. EPA’s regulatory activity is at its highest level in recorded history. Utility deregulation and competitive sourcing are opening new alternatives resulting in new complexities (including additional environmental complexities), for our day-to-day operations and long-term development considerations. Corporate re-engineering is changing the face of every industrial company in the United States, if not the world. What we see two years from now will not be anything like what we saw two years ago.

Each industry grows, or changes, as a result of the pressures it experiences. If you are to be successful you have to look at what these pressures are and how to address them.

What are the pressures on the industrial boiler owner today which will affect how he meets his energy needs?

- **CHANGES IN OPERATOR KNOWLEDGE AND EXPERIENCE**  
Retirements and Loss of Naval Training
- **INCREASING ENVIRONMENTAL REGULATIONS AND COMPLEXITY**  
NAAQS Integration, ICCR, FERC, OTAG
- **INCREASING GLOBAL COMPETITION**  
Cost of Goods Sold, Regulation Difference, Profitability
- **DEMANDS FOR INCREASED ENERGY EFFICIENCY**  
Global Climate, Cogeneration
- **DEGRADATION OF FUEL SUPPLY QUALITY AND CONSISTENCY**  
Waste Fuels

These pressures have created a new environment in which the industrial power plant must operate. The ability of the industrial company to compete has been seriously complicated. The goods and services which are produced to maintain our standard of living and to provide the social benefits to the people of the United States are becoming more expensive primarily due to the increasing burden of regulations, environmental and others. Talking primarily about environmental regulations, these regulations are generated without significant positive benefit. We forget it takes energy to clean up the environment or do anything.

As a result of these pressures, especially the environmental regulations, we see some major trends which may be indicative of what the future will hold.

- Industrial development is now mostly in other countries and not in the United States.
- There are very few people who know how to burn coal or fuels other than natural gas in an efficient, environmentally acceptable way.
- The question of who should own my powerplant is given serious consideration. As more companies proceed down this path, the financial plant, definition and labor problems will be worked out for others to follow.
- Staff reductions and travel curtailments are commonplace to meet the ever increasing globally competitive pressures and the demand for short term profits by investors and management. Capital for powerplants vs. production.

- Environmental regulations have forced rapid development of technologies without a plant operation infra-structure.
- Regulations emanating from the implementation of the Clean Air Act Amendments of 1990 are being generated on all fronts at the same time without sufficient time to determine the true costs and benefits. However, all affected parties are beginning to talk to each other.
- We are beginning to see a trend where savings are being generated through team efforts. There is a greater acceptance of owner/vendor/engineer groups working together. A new way to work out projects.
- Natural gas is the primary industrial fuel of choice.

The single most important question to come out of our annual meeting in October was: “what is the future of industrial energy needs in a deregulated utility market?” We are going to try to work this out and develop a program to specifically address this issue over the next year.

Today's situation is one of complexity and multiple energy/ environmental issues forcing companies to look at the increasingly complex solutions with increasingly smaller staffs.

I must say, I do not believe there is anyone in this room who does not want a clean and safe environment for our children and our grandchildren. This has become a top priority in everyone's mind. It is like buckling seat belts when you get into a car; where once there was resistance, now there is a natural acceptance.

Where do I think the industrial powerplant will be in the next 10 to 20 years?

- The industrial powerplant may not necessarily be owned or operated by the users of the steam and power. The powerplant will be considered a profit center.
- Powerplants will be built to generate electricity based on a process steam load to capitalize on the system efficiencies. The “steam only” system may become extinct.
- There will be a drive for effective and efficient increased consumption of any waste which can be used as fuel, if not completely banned by the EPA, under a radical combustion strategy and maximum achievable control technology (MACT). Large Wholesale Electric Generation's (WEG) will be located at mine sites or where there is low cost fuel.
- The next generation of electric powerplants will be smaller (40 to 240 MW) systems located at or near the major industrial energy users, taking advantage of the increased efficiencies of cogeneration.

- Environmental regulations will be generated with real and valued input by all interested parties. These may provide a sense of realism and benefit for the costs incurred. The Industrial Combustion Coordinated Rulemaking (ICCR) and Ozone Transport Assessment Group (OTAG) are examples of this.
- The environment will be cleaner; and people will be better educated. They will not be scared like “Goosy Lucy” listening to “Chicken Little” when they hear words like endocrine disrupters, ozone hole, alar and radon.
- Clean coal technology programs will have a more important place in everyday decision making.

The above projections are based on a sense of optimism that there will be sufficient energy awareness to balance the environmental awareness which exists today. If this happens we will be able to replace our aging industrial energy base and provide the support for an increased national productive capacity. If it does not happen, I am afraid to consider the possibility that we will become a nation of service providers to the world and importers of goods. Of course, this is what some would like to see -- a return to the primitive times.